

1163-11-741

Padmavathi Srinivasan* (padmavathi.srinivasan@uga.edu), Athens, GA 30601, and **Wanlin Li, Daniel Litt** and **Nick Salter**. *The section conjecture at the boundary of moduli space*. Preliminary report.

Grothendieck's section conjecture predicts that over number fields, rational points on a smooth projective curve of genus at least 2 are in bijection with sections of a natural exact sequence arising from fundamental groups. We construct infinitely many curves of each genus satisfying the section conjecture in interesting ways, building on work of Stix, Harari, and Szamuely. The main input is an analysis of the degeneration of certain torsion cohomology classes on the moduli space of curves at various boundary components. This is (preliminary) joint work with Wanlin Li, Daniel Litt and Nick Salter. (Received September 12, 2020)